OVA 5000: The Standard for Optical Component T&D

Key Specifications

- High resolution C, L, and O band capability
- Device length up to 150 meters
- 80 dB of dynamic range
- RL / IL, GD, CD, PMD, PDL and other parameters measured in a single scan (see data sheet for specs)
- Laser included

A Complete Component Characterization in a Single Scan

A single scan measures the component's linear transfer function (Jones Matrix). From these data, insertion loss (IL), group delay (GD), chromatic dispersion (CD), polarization mode dispersion (PMD), polarization dependent loss (PDL), and other linear parameters can be calculated.

Get Reflectometer Capability with the OFDR Option

Two great instruments in one. Measure reflective events over lengths up to 75 meters with 20 µm resolution and a noise floor of -95dB.

No Need for Tedious Polarization Alignment

The standard OVA 5000 software scans across all polarization states. The polarization analysis software (PAS) option allows polarization dependent device and characterization.

Getting to 100G and Beyond

100G Data Center Driving Optical Component Design

Transceivers, Bragg gratings, ROADM's, modulators, Mux's, Demux's, waveguides and couplers are all objects of product development for high bit rate applications; including, in some cases, device integration into a silicon platform.

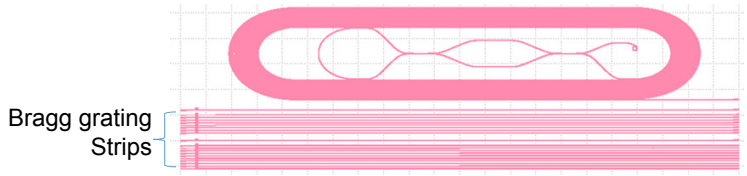
Accelerate Your Product Development

- For customers actively engaged in optical component development, the OVA 5000 will pay for itself in less than a year.
- A full component characterization in a single scan in under 10 s. Take one measurement and analyze the data 1000 different ways.
- The OVA 5000 scans at all polarization states. Using this data, new analysis can be generated at any desired polarization state, for any set of parameters.

OVA 5000: Analysis of a Bragg Grating on a Silicon Platform

University of California Santa Barbara

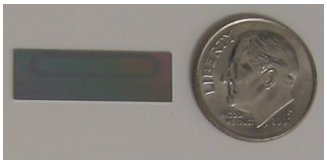
Low kappa narrow bandwidth Si_3N_4 Bragg gratings manufactured on a $Si/Si_3N_4/SiO_2$ Chip



Waveguide - Schematic

UCSB

"Blumenthal and Bowers Optoelectronics Research Groups"



Grating Waveguide Chip - Actual Device Size

Using Polarization Analysis Software Separates Polarization Dependent RL. Data Shown are TE Mode and TM Mode Polarization State.

Full Characterization from a Single Scan

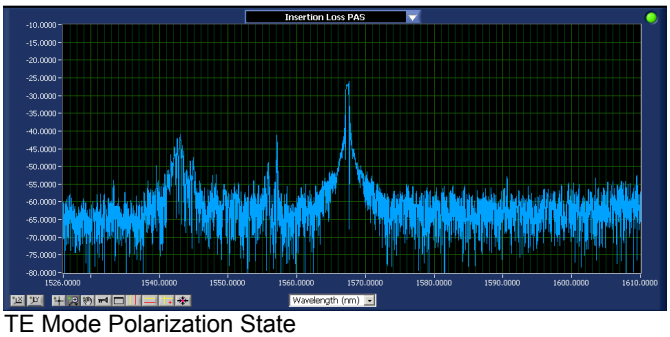
A single scan fully characterizes a component over all polarization states.

The Polarization Analysis Software (PAS) Option

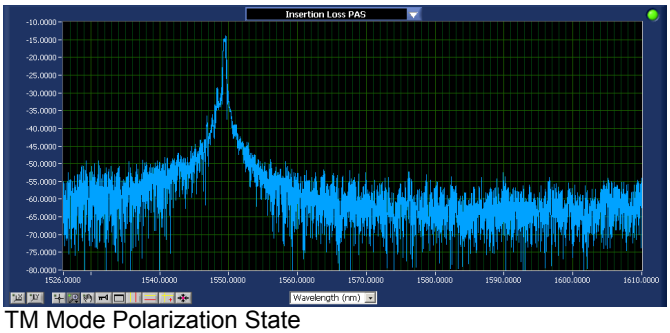
Use the PAS software and data from a single scan to model the device response at user-defined polarization states. The data at right shows how the value of RL is different for TE mode and TM mode.

No Stand Alone Polarization Alignment Required

Alternate methods to using the OVA 5000 require using a polarization controller or aligned PM fiber. This is very time consuming and adds a high degree of variability to an already difficult measurement challenge.



TE Mode Polarization State



TM Mode Polarization State